REMARKS

In the Office Action, dated June 16, 2005, the Examiner rejected claims 1-5, 10, 11, 14, 15, 20, 21, 23 and 24 under 35 U.S.C. §103(a) as allegedly being unpatentable over U.S. Patent No. 6,360,196 (hereinafter "POZNANSKI") in view of U.S. Patent No. 6,321,189 (hereinafter "MASUICHI"). The Examiner further rejected claims 12 and 13 under 35 U.S.C. §103(a) as allegedly being unpatentable over POZNANSKI and MASUICHI in view of U.S. Patent No. 6,604,101 (hereinafter "CHAN"). The Examiner also rejected claims 6-9, 16-19, 22 and 25 under 35 U.S.C. §103(a) as allegedly being unpatentable over POZNANSKI and MASUICHI in view of U.S. Patent No. 6,006,221 (hereinafter "LIDDY").

By way of this amendment, Applicants have amended claims 1, 5, 6-11, 14, 15 and 18-25 to improve form. New claims 26-29 have been added. No new matter by has been added by the present amendment. Reconsideration of the outstanding rejections of pending claims 1-25 is respectfully requested in view of the following remarks.

REJECTIONS UNDER 35 U.S.C. §103

In paragraph 5, the Office Action rejects claims 1-5, 10, 11, 14, 15, 20, 21, 23 and 24 under 35 U.S.C. §103(a) as allegedly being unpatentable over POZNANSKI in view of MASUICHI. Applicants respectfully traverse.

Claim 1 recites, among other features, "receiving a search query that includes terms in a first language," "determining possible translations of the terms of the search query into a second language," "locating documents in the first language that contain links having associated content

that matches the terms of the search query, the links referring to documents in the second language," and "disambiguating among the possible translations of the terms of the search query using the documents in the second language to identify one of the possible translations as a likely translation of the search query." Applicants submit that POZNANSKI and MASUICHI, either singly or in any reasonable combination, do not disclose this combination of features.

To make a proper rejection under 35 U.S.C. §103(a), the burden is on the Examiner to establish a *prima facie* case of obviousness. See M.P.E.P. § 2142. As one requirement for establishing a *prima facie* case of obviousness, the reference (or references when combined) cited by the Office Action must teach or suggest all of the claim features. *In re Vaeck*, 947 F.2d 488, U.S.P.Q.2d 1438 (Fed. Cir. 1991). See M.P.E.P. § 2143. Applicants respectfully submit that the references cited by the Office Action, either singly or in combination, do not teach or suggest each and every feature of amended claim 1.

For example, POZNANSKI and MASUICHI do not disclose or suggest "locating documents in the first language that contain links having associated content that matches the terms of the search query, the links referring to documents in the second language" and "disambiguating among the possible translations of the terms of the search query using the documents in the second language to identify one of the possible translations as a likely translation of the search query," as recited in amended claim 1. The Office Action admits that POZNANSKI does not disclose these features, but cites MASUICHI as allegedly remedying the deficiencies in the disclosure of POZNANSKI. The Office Action cites FIGS. 3, 4 and 5;

column 11, lines 38-55; column 11, line 56 through column 13, line 8; and column 14, lines 19-

56 of MASUICHI as allegedly disclosing the above-noted features.

At column 11, lines 38-55 (and further shown in FIGS. 3 and 4), MASUICHI discloses:

> FIG. 3 shows an example of pair data stored in the pair data storing unit 12. Each of the pair data consists of a Japanese sentence, an English sentence having the same meaning and a pair data identifier identifying them.

> FIG. 4 shows an example of results of the morphological analysis stored in the content word storing unit 15. Japanese content words extracted from the Japanese sentence in the pair data and English content words extracted from the corresponding English sentence in the pair data are identified by the same pair data identifier as the original sentence pair data. That is, the content word pair stored in the content word storing unit 15 and the pair data stored in the pair data storing unit 12 are identified by the same pair data identifier.

This section of MASUICHI, thus, discloses the storage of pair data in a data storing unit

12, with an identifier being associated with each pair data and with one of the pair data

consisting of a Japanese sentence, and the other one of the pair data consisting of an English

sentence that has the same meaning as the Japanese sentence with which it is paired. This

section of MASUICHI, therefore, discloses a data structure that consists of a first sentence in a

first language being associated with a second sentence in a second language, where the second

sentence has the same meaning as the first sentence. Neither portions of the pair data of

MASUICHI includes documents in a first language *containing links* that have associated content

that matches terms of a search query, with the *links* referring to documents in a second language.

This section of MASUICHI does not disclose, or even suggest, "documents in the first language

that contain links having associated content that matches the terms of the search query, the links

referring to documents in the second language," as recited in amended claim 1.

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At column 11, line 56 through column 13, line 8, MASUICHI discloses an algorithm,

shown in FIG. 5, that uses a received sentence Q in Japanese to retrieve similar Japanese

sentences from pair data storing unit 12 (see column 12, lines 4-11). English sentences, that are

paired with the retrieved similar Japanese sentences in pair data storing unit 12, are then

retrieved as being English sentences having similar meaning to the received sentence Q (see

column 13, lines 1-8). This section of MASUICHI, thus, discloses the retrieval of English

translation sentences that are similar in meaning to a received sentence Q in Japanese. This

section does not disclose, or even suggest, documents in a first language *containing links* that

have associated content that matches terms of a search query, with the *links* referring to

documents in a second language, as recited in amended claim 1.

At column 14, lines 19-56, MASUICHI discloses:

This embodiment obtains similar English sentences based on the received
Japanese sentence. Further, according to the present invention, it is possible to
divide the received Japanese sentence into phrases and/or words independent of
each other by a syntax analysis to obtain similar English sentences based on each
of the phrases or words. Thereby the retrieval reflects the meaning of the received
Japanese sentence more accurately. In this case, the processes in the above Step
S1 to Step S14 are applied to each phrase or word, and thereby the sum of values
of the extended mutual information of each pair data identifier obtained by the
similar English sentence retrieving unit 18 is regarded as a final value. The similar
English sentences can be output in the descending order of the sum values as a
result of retrieval.

FIG. 6 shows a result of retrieving English sentences similar in meaning to the
received Japanese sentence "{character pullout}{character pullout}{character
pullout} (roughly means "Clouds formed in the sky".)" by the above embodiment
of the cross-lingual retrieval system using 360,000 pairs each having a Japanese
sentence and an English sentence having the same meaning. These 7 sentences are
extracted from 20 sentences of higher ranks in the result of retrieval by being
determined adequate to be referred to for translating "{character
pullout}{character pullout}{character pullout}" into English. The numeral

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following each sentence indicates what rank the sentence takes in the result of retrieval. For example, the sentence "Clouds blanketed the sky" has ninth higher similarity in 360,000 English sentences in the object of retrieval.

By applying the morphological analysis to the sentence "{character pullout}{character pullout}{character pullout}", the Japanese content words "{character pullout}" and "{character pullout}" are obtained. However, like this example, if there is no Japanese sentence containing both "{character pullout}" and "{character pullout}" in 360,000 sentences,[Related Art 1] cannot obtain any adequate result of retrieval. In fact, the word "{character pullout}" does not exist in the bracketed Japanese sentences in FIG. 6, and therefore, [Related Art 1] cannot obtain these adequate translations.

This section of MASUICHI merely discloses the dividing of a Japanese sentence into multiple phrases and/or words, and using each of the phrases and/or words to obtain English sentences having similar meaning to the Japanese sentence. This section of MASUICHI, however, does not disclose or suggest "documents in the first language that contain links having associated content that matches the terms of the search query, the links referring to documents in the second language," as recited in amended claim 1.

Since MASUICHI does not remedy the deficiencies in the disclosure of POZNANSKI, and the combination of MASUICHI and POZNANSKI does not disclose each and every feature of claim 1, Applicants submit that the Office Action has failed to establish a *prima facie* case of obviousness. Withdrawal of the rejection of claim 1 is, therefore, respectfully requested.

Claim 2-5 depend from claim 1. Withdrawal of the rejection of these claims is, therefore, respectfully requested for at least the reasons set forth above with respect to claim 1.

Independent claim 10 recites "means for obtaining a search query that includes terms in a first language," "means for performing an initial translation of the terms of the

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search query into a second language, the initial translation identifying one or more possible translations of the terms of the search query," "means for searching a database to locate documents in the first language that contain links having associated content that matches the terms of the search query, the links referring to documents in the second language" and "means for disambiguating among the possible translations of the terms of the search query using the documents in the second language to identify one of the possible translations as a correct translation of the search query into the second language." Similar to the arguments set forth above with respect to claim 1, POZNANSKI or MASUICHI, either singly or in combination, does not disclose, or even suggest, means for searching a database to locate documents in the first language that contain links having associated content that matches the terms of the search query, where the links refer to documents in the second language, and use of the documents in the second language to identify one of the possible translations of a search query from the first language into the second language as a correct translation, as recited in claim 10. Withdrawal of the rejection of claim 10 is, therefore, respectfully requested.

Independent claim 11 recites "a database of documents in a plurality of languages," "a search engine configured to: receive a search query that includes terms in a first language, and search the database to locate documents in the first language that contain links having associated content that matches the terms of the search query, the links referring to documents in a second language," and "a query translation engine configured to: receive the search query, determine possible translations of the terms of the search query into the second language, and disambiguate

among the possible translations of the terms of the search query using the documents in the second language to identify one of the possible translations as a likely translation of the search query." Similar to the arguments set forth above with respect to claim 1, POZNANSKI or MASUICHI, either singly or in combination, does not disclose, or even suggest, a search engine configured to search a database to locate documents in a first language that contain links having associated content that matches the terms of the search query, where the links refer to documents in a second language, and a query translation engine that uses the documents in the second language to identify one of the possible translations of a search query from the first language into the second language as a likely translation, as recited in claim 11. Withdrawal of the rejection of claim 11 is, therefore, respectfully requested.

Independent claim 14 recites a computer readable medium that comprises "instructions for obtaining a search query that includes terms in a first language," "instructions for determining possible translations of the terms of the search query into a second language," "instructions for finding documents in the first language that contain links having associated content that matches the terms of the search query, the links referring to documents in the second language" and "instructions for disambiguating among the possible translations of the terms of the search query using the identified documents to translate the search query into the second language." Similar to the arguments set forth above with respect to claim 1, POZNANSKI or MASUICHI, either singly or in combination, does not disclose, or even suggest, a computer readable medium that comprises instructions for finding documents in the first language that contain links having associated content that matches the terms of the search query, where the

links refer to documents in the second language, and instructions that use the documents in the second language to translate the search query into the second language, as recited in claim 14. Withdrawal of the rejection of claim 14 is, therefore, respectfully requested.

Independent claim 15 recites "a search engine configured to: receive a search query that includes one or more terms in a first language, and locate documents in the first language that contain links having anchor text that matches the terms of the search query, the anchor text referring to documents in a second language" and "a query translation engine configured to: receive the search query, initially translate the search query to determine possible translations of the terms of the search query into the second language, and disambiguate among the possible translations of the terms of the search query using the documents in the second language to identify one of the possible translations as a correct translation of the search." Similar to the arguments set forth above with respect to claim 1, POZNANSKI or MASUICHI, either singly or in combination, does not disclose, or even suggest, a search engine configured to locate documents in the first language that contain links having anchor text that matches the terms of the search query, where the anchor text refers to documents in a second language, and a query translation engine configured to use the documents in the second language to identify one of the possible translations as a correct translation of the search query, as recited in claim 15. Withdrawal of the rejection of claim 15 is, therefore, respectfully requested.

Independent claim 20 recites "receiving a search query that includes terms in a first language," "determining possible translations of the terms of the search query into a second language," "locating documents in the first language that contain links having associated content

that matches the terms of the search query, the links referring to other documents in the first language," "identifying documents in the second language that contain links that refer to the other documents" and "disambiguating among the possible translations of the terms of the search query using the identified documents to identify one of the possible translations as a likely translation of the search query." Applicants submit that POZNANSKI or MASUICHI, either singly or in combination, does not disclose, or even suggest, locating documents in the first language that contain links having associated content that matches the terms of the search query, the links referring to other documents in the first language, identifying documents in the second language that contain links that refer to the other documents, and using the identified documents to identify one of the possible translations as a likely translation of the search query, as recited in claim 20. Withdrawal of the rejection of claim 20 is, therefore, respectfully requested. Applicants note that the Office Action rejects claim 20 along with claims 1 and 14 when claim 20 recites substantially different features than both claims 1 and 14. The actual features of claim 20 *have not been addressed by the Office Action.* Applicants respectfully request that the Examiner point out where either POZNANSKI or MASUICHI discloses each and every feature of claim 20 in any subsequent Office Action.

Independent claim 21 recites "a search engine configured to: receive a search query that includes terms in a first language, locate documents in the first language that contain links having associated content that matches the terms of the search query, the links referring to other documents in the first language, and identify documents in a second language that contain links that refer to the other documents" and "a query translation engine configured to: determine

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possible translations of the terms of the search query into the second language, and disambiguate among the possible translations of the terms of the search query using the identified documents to identify one of the possible translations as a likely translation of the search query." POZNANSKI or MASUICHI, either singly or in combination, does not disclose, or even suggest, a search engine configured to locate documents in the first language that contain links having associated content that matches the terms of the search query, where the links refer to other documents in the first language, and identify documents in a second language that contain links that refer to the other documents, and a query translation engine configured to use the identified documents to identify one of the possible translations as a likely translation of the search query, as recited in claim 21. Withdrawal of the rejection of claim 21 is, therefore, respectfully requested. Applicants note that the Office Action rejects claim 21 "on similar grounds corresponding to the arguments given for the rejected claim 11." Claim 21, however, recites substantially different features, than those recited in claim 11, which have not been addressed in the Office Action. Applicants respectfully request that the Examiner point out where POZNANSKI or MASUICHI allegedly discloses the various features of claim 21 in any subsequent Office Action.

Independent claim 23 recites "receiving a search query that includes terms in a first language," "determining possible translations of the terms of the search query into a second language," "locating documents in the first language that match the terms of the search query," "identifying documents in the second language that contain links that refer to the first language documents" and "disambiguating among the possible translations of the terms of the search

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query using the second language documents." POZNANSKI or MASUICHI, either singly or in combination, does not disclose, or even suggest, locating documents in the first language that match the terms of the search query, identifying documents in the second language that contain links that refer to the first language documents and using the second language documents to disambiguate among the possible translations of the terms of the search query, as recited in claim 23. Withdrawal of the rejection of claim 23 is, therefore, respectfully requested. Applicants note that the Office Action rejects claim 23 along with claims 10 and 15, when claim 23 recites substantially different features than both claims 10 and 15. These different features have not been addressed by the Examiner in the Office Action. Applicants respectfully request that the Examiner point out where POZNANSKI or MASUICHI allegedly discloses the various features of claim 23 in any subsequent Office Action.

Independent claim 24 recites "a search engine configured to: receive a search query that includes terms in a first language, locate documents in the first language that match the terms of the search query, and identify documents in a second language that contain links that refer to the first language documents" and "a query translation engine configured to: determine possible translations of the terms of the search query into the second language, and disambiguate among the possible translations of the terms of the search query using the second language documents to identify one of the possible translations as a likely translation of the search query." POZNANSKI or MASUICHI, either singly or in combination, does not disclose, or even suggest, a search engine configured to locate documents in a first language that match terms of a search query and identify documents in a second language that contain links that refer to the first

language documents and a query translation engine configured to use the second language

documents to identify one of the possible translations as a likely translation of the search query,

as recited in claim 24. Withdrawal of the rejection of claim 24 is, therefore, respectfully

requested. Applicants note that the Office Action rejects claim 24 "on similar grounds

corresponding to the arguments given for the rejected claim 11." Claim 24, however, recites

substantially different features, than those recited in claim 11, which have not been addressed in

the Office Action. Applicants respectfully request that the Examiner point out where

POZNANSKI or CHAN allegedly discloses the various features of claim 24 in any subsequent

Office Action.

In paragraph 6, the Office Action rejects claims 12 and 13 under 35 U.S.C. §103(a) as

allegedly being unpatentable over POZNANSKI and MASUICHI in view of CHAN. In

rejecting claims 12 and 13, the Office Action admits that the combination of POZNANSKI and

MASUICHI does not disclose "wherein the database includes a plurality of documents

distributed over a network." The Office Action, however, cites to CHAN as allegedly disclosing

these features. Applicants note, however, that the alleged teaching of CHAN does not remedy

the deficiencies in POZNANSKI and MASUICHI discussed above with respect to claim 11,

from which claims 12 and 13 depend. Withdrawal of the rejection of claims 12 and 13 is,

therefore, respectfully requested for at least the reasons set forth above with respect to claim 11.

In paragraph 7, the Office Action rejects claims 6-9, 16-19, 22 and 25 under 35 U.S.C.

§103(a) as allegedly being unpatentable over POZNANSKI and MASUICHI in view of LIDDY.

Applicants respectfully submit that the Office Action has failed to establish a *prima facie* case of

obviousness with respect to the rejection of claims 6-9, 16-19, 22 and 25 since the references cited by Office Action, either singly or in combination, do not teach or suggest each of the features recited in claims 6-9, 16-19, 22 and 25.

The Office Action (pgs. 10 and 11) cites POZNANSKI, MASUICHI and LIDDY as allegedly disclosing the various features of dependent claims 6-9, 16 and 17. Applicants submit, however, that POZNANSKI, MASUICHI and LIDDY, in any reasonable combination, do not disclose the features of claims 1 and 15, from which claims 6-9 and 16 and 17 depend, respectively. Withdrawal of the rejection of claims 6-9, 16 and 17 is, therefore, requested for at least the reasons set forth above with respect to independent claims 1 and 15.

A further requirement for establishing a *prima facie* case of obviousness is that there must be some reason, suggestion, or motivation to combine reference teachings. *In re Vaeck*, 947 F.2d 488, U.S.P.Q.2d 1438 (Fed. Cir. 1991). See M.P.E.P. § 2143. Applicants respectfully submit that the Office Action has not provided a sufficient reason, suggestion, or motivation for combining the teachings of POZNANSKI, MASUICHI and LIDDY.

With respect to claims 6-9, 16 and 17, Applicants submit that the Office Action (pages 10 and 11) has not provided any reason, suggestion, or motivation, whatsoever, why a person of ordinary skill in the art would have modified the teachings of POZNANSKI and MASUICHI with the teachings of LIDDY to produce the invention recited in these claims. The Office Action does not provide any type of motivational statement for combining POZNANSKI, MASUICHI and LIDDY with respect to claims 6-9, 16 and 17. Since the Office Action does not provide a motivational statement with respect to these claims, Applicants submit that the Office Action has

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not established a *prima facie* case of obviousness with respect to claims 6-9, 16 and 17.

Withdrawal of the rejection of these claims is respectfully requested for at least this additional

reason.

Amended claim 18 recites a "method for performing cross-language document retrieval"

that includes "receiving a search query that includes one or more terms in a first language,"

"performing a search of documents in the first language to locate one or more of the first

language documents that contain links having anchor text that matches the search query, the

anchor text referring to one or more documents in a second language," "determining possible

translations of the terms of the search query into the second language," "using the second

language documents as parallel corpora for disambiguation among the possible translations of

the terms of the search query," "identifying one of the possible translations as a correct

translation of the search query based on the disambiguation" and "performing a search of second

language documents using the correct translation of the search query."

In rejecting claim 18, the Office Action cites column 2, line 66 through column 3, line 15

and column 3, lines 29-50 of POZNANSKI as allegedly disclosing the features "performing a

search of documents in the first language...." At column 2, line 66 through column 3, line 15,

POZNANSKI discloses:

> According to a first aspect of the invention, there is provided a method of
> retrieving information from a plurality of documents in a target language using a
> query in a source language, comprising converting the query into the target
> language using a multilingual resource, forming a query in the target language
> from the converted query, applying the query in the target language to an
> information management system, and converting at least part of the or each
> document in the target language identified by the information management system
> into the source language using the multilingual resource.

A multilingual resource is any system which is capable of converting a term (word or collocation) in the source language into one or more equivalent terms in the target language. An information management system is any system which is capable of identifying documents containing terms which are applied to the system as a query.

This section of POZNANSKI merely discloses conversion of a query in a source language into a target language, using the query converted into the target language to identify documents in the target language, and conversion of at least portions of the identified documents in the target language into the source language. This section of POZNANSKI, thus, discloses the location of documents in a second language that match terms of a search query converted from a first language into the second language. This section of POZNANSKI does not disclose, or even suggest, "performing a search of documents in the first language to locate one or more of the first language documents *that contain links having anchor text that matches the search query, the anchor text referring to one or more documents in a second language*" (emphasis added), as recited in amended claim 18.

At column 3, lines 29-50, POZNANSKI discloses:

The at least part of each document may comprise a title of the document. The at least part of each document may comprise an abstract or abridgement of the document. The at least part of each document may comprise a sentence containing terms which match the query in the target language.

According to a second aspect of the invention, there is provided an apparatus for retrieving information from a plurality of documents in a target language using a query in a source language, characterised by comprising a multilingual resource for converting the query into the target language, means for forming a query in the target language from the converted query, and means for applying the query in the target language to an information management system, the multilingual resource being arranged to convert at least part of the or each document in the

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> target language identified by the information management system into the source language.
>
> The multilingual resource may be a bilingual glosser. The glosser may be arranged to identify and translate each term of the source language query. The glosser may be arranged to identify and translate terms which are collocations but not to translate the individual words of the collocations. For each term having more than one translation, the glosser may be arranged to supply more than one of the translations.

This section of POZNANSKI discloses a "bilingual glosser" that translates each term of a query in a source language into a target language and identifies documents in the target language that match the converted query. The identified documents may then be converted by an information management system back into the source language. This section, similar to the section discussed above, merely discloses the location of documents in a second language that match terms of a search query converted from a first language into the second language. This section of POZNANSKI does not disclose, or even suggest, "performing a search of documents in the first language to locate one or more of the first language documents *that contain links having anchor text that matches the search query, the anchor text referring to one or more documents in a second language*" (emphasis added), as recited in amended claim 18.

In rejecting claim 18, the Office Action admits that POZNANSKI does not disclose the feature "for disambiguation among the possible translations of the terms of the search query." The Office Action, however, cites MASUICHI as allegedly disclosing this feature. Assuming for the sake of argument that MASUICHI does disclose this feature noted by the Office Action (a point that Applicants do not concede), Applicants submit that MASUICHI does not remedy the deficiencies in the disclosure of POZNANSKI noted above. As already discussed, MASUICHI

discloses a data structure that consists of a first sentence in a first language being associated with a second sentence in a second language, wherein the second sentence has the same meaning as the first sentence. Neither portions of the pair data of MASUICHI includes documents in a first language *containing links* that have associated content that matches terms of a search query, with the *links* referring to documents in a second language. MASUICHI, therefore, does not disclose "performing a search of documents in the first language to locate one or more of the first language documents *that contain links having anchor text that matches the search query, the anchor text referring to one or more documents in a second language*" (emphasis added), as recited in amended claim 18.

The Office Action further admits that the combination of POZNANSKI and MASUICHI do not disclose the feature "using the second language documents as parallel corpora." The Office Action, however, alleges that column 13, lines 4-17; abstract lines 1-6; column 3, line 55 through column 4, line 13; and column 15, line 64 through column 16, line 10 of LIDDY allegedly disclose this feature.

At column 13, lines 4-17, LIDDY discloses:

> Global Knowledge simulates the observation made in human sense disambiguation that more frequently used senses of words are cognitively activated in preference to less frequently used senses of words. Therefore, the words not yet disambiguated by Local Context or Domain Knowledge will now have their multiple concept group codes compared to a Global Knowledge database source, referred to as the frequency database. The database is an external, off-line sense-tagging of parallel corpora with the correct concept group code for each word. The disambiguated parallel corpora will provide frequencies of each word's usage as a particular sense (equatable to concept group) in the sample corpora. The most frequent sense is selected as the concept category.

This section of LIDDY, thus, discloses a "global knowledge" frequency database that provides frequencies of each word's usage as a particular sense and that is used to select a concept group for each word of a natural language search query. The Office Action (pg. 10) cites LIDDY as allegedly disclosing the "using the second language documents as parallel corpora..." feature, but does not address the fact that the "second language documents" recited in this feature are, as recited in the "performing a search of documents..." feature noted above, documents in a second language that are referred to by links, having anchor text that matches a search query, contained in one or more documents in a first language. LIDDY does not disclose that the "parallel corpora" contained in the global knowledge database include documents in a second language that are referred to by links, having anchor text that match a search query, contained in one or more documents in a first language. Additionally, as already discussed above, POZNANSKI and MASUICHI also do not disclose this feature. This section of LIDDY, therefore, does not remedy the deficiencies in the disclosures of POZNANSKI and MASUICHI noted above.

At the abstract, lines 1-6, LIDDY discloses:

A document retrieval system where a user can enter a query, including a natural language query, in a desired one of a plurality of supported languages, and retrieve documents from a database that includes documents in at least one other language of the plurality of supported languages.

This section of LIDDY merely discloses that a user can enter a natural language search query in one language supported by the system and retrieve documents in another language from a database. This section of LIDDY does not disclose, or even suggest, "performing a search of documents in the first language to locate one or more of the first

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language documents that contain links having anchor text that matches the search query,

the anchor text referring to one or more documents in a second language" or "using the

second language documents as parallel corpora for disambiguation among the possible

translations of the terms of the search query," as recited in amended claim 18 and,

therefore, does not remedy the deficiencies in the disclosures of POZNANSKI and

MASUICHI noted above.

At column 3, line 55 through column 4, line 13, LIDDY discloses:

The present invention is embodied in a multilingual document retrieval system,
10, sometimes referred to as CINDOR (Conceptual INterlingua DOcument
Retrieval). The CINDOR system is capable of accepting a user's query stated in
any one of a plurality of supported languages while seamlessly searching,
retrieving and relevance-ranking documents written in any of the supported
languages. The system further offers a "gloss" transliteration of target documents,
once retrieved, sufficient for a surface understanding of the document's contents.

Unless otherwise stated, the term "document" should be taken to mean text, a unit
of which is selected for analysis, and to include an entire document, or any
portion thereof, such as a title, an abstract, or one or more clauses, sentences, or
paragraphs. A document will typically be a member of a document database,
referred to as a corpus, containing a large number of documents. Such a corpus
can contain documents in any or all of the plurality of supported languages.

Unless otherwise stated, the term "query" should be taken to mean text that is
input for the purpose of selecting a subset of documents from a document
database. While most queries entered by a user tend to be short compared to most
documents stored in the database, this should not be assumed. The present
invention is designed to allow natural language queries.

This section of LIDDY discloses the use of a search query in one of multiple supported

languages to search, retrieve, and rank documents written in other ones of the supported

multiple languages. This section of LIDDY does not disclose, or even suggest,

"performing a search of documents in the first language to locate one or more of the first

language documents that contain links having anchor text that matches the search query,

the anchor text referring to one or more documents in a second language" or "using the

second language documents as parallel corpora for disambiguation among the possible

translations of the terms of the search query," as recited in amended claim 18 and,

therefore, does not remedy the deficiencies in the disclosures of POZNANSKI and

MASUICHI noted above.

> At column 15, line 64 through column 16, line 10, LIDDY discloses:

> FIG. 5 shows a complete single French sentence as input, and shows the two-stage disambiguation explicitly. The native language sentence is shown being processed through the multilingual concept group generation process, to a monolingual conceptual representation with disambiguated concept codes. For simplicity, only the English language members of the multilingual concept groups are shown. In this example, the complete sentence has "anchor codes" (e.g., "comptant," which maps to code #105, with the English member "in cash") that can be used to help disambiguate other polysemous words in the sentence using Local or Domain processing. For example, the French "les paiements" maps to three codes, which are disambiguated at the MCGD to a Finance code).

This section of LIDDY discloses the processing of words in a first language to identify

multilingual concept codes that may be used to translate the words in the first language to

a second language. This section of LIDDY does not disclose, or even suggest,

"performing a search of documents in the first language to locate one or more of the first

language documents that contain links having anchor text that matches the search query,

the anchor text referring to one or more documents in a second language" or "using the

second language documents as parallel corpora for disambiguation among the possible

translations of the terms of the search query," as recited in amended claim 18 and,

therefore, does not remedy the deficiencies in the disclosures of POZNANSKI and

MASUICHI noted above.

Since POZNANSKI, MASUICHI, and LIDDY do not disclose or suggest all of

the features of claim 18, Applicants submit that the Office Action has not established a

prima facie case of obviousness. Withdrawal of the rejection of claim 18 is, therefore,

respectfully requested.

Claim 19 recites similar features to those discussed above with respect to claim 18.

Withdrawal of the rejection of claim 19 is, therefore, respectfully requested for at least reasons

similar to reasons set forth above with respect to claim 18.

Claim 22 recites a method that includes "receiving a search query that includes one or

more terms in a first language," "performing a search of documents in the first language to locate

one or more of the first language documents that contain links that include anchor text that

matches the search query, the anchor text referring to one or more other documents in the first

language," "identifying documents in a second language that contain links that refer to the one or

more other first language documents," "determining possible translations of the terms of the

search query into the second language," "using the identified second language documents as

parallel corpora for disambiguation among the possible translations of the terms of the search

query," "identifying one of the possible translations as a correct translation of the search query

based on the disambiguation" and "performing a search of second language documents using the

correct translation of the search query."

The Office Action (page 10) asserts that this claim has substantially the same features as

claims 18 and 19, and rejects this claim on similar grounds. Claim 22, however, recites *substantially different features* than either claim 18 or 19. These features were not addressed in the Office Action. Applicants submit that neither POZNANSKI, MASUICHI nor LIDDY discloses or suggests the invention recited in claim 22. If the Examiner persists in maintaining this rejection, Applicants respectfully request that the Examiner particularly point out where each and every feature of claim 22 is disclosed in POZNANSKI, MASUICHI or LIDDY.

Independent claim 25 recites "receiving a search query that includes one or more terms in a first language," "performing a search of documents in the first language to locate one or more of the first language documents that match the search query," "identifying documents in a second language that contain links that refer to the one or more first language documents," "determining possible translations of the terms of the search query into the second language," "using the identified second language documents as parallel corpora for disambiguation among the possible translations of the terms of the search query," "identifying one of the possible translations as a correct translation of the search query based on the disambiguation" and "performing a search of second language documents using the correct translation of the search query."
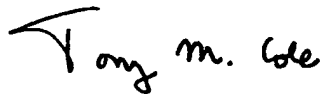
The Office Action (page 10) asserts that this claim has substantially the same features as claims 18 and 19, and rejects this claim on similar grounds. Claim 25, however, recites substantially different features then either claims 18 and 19, features that the Office Action has not addressed. Applicants submit that neither POZNANSKI, MASUICHI nor LIDDY discloses or suggests the invention recited in claim 25. If the Examiner persists in maintaining this rejection, Applicants respectfully request that the Examiner particularly point out where each and

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every feature of claim 25 is disclosed in POZNANSKI, MASUICHI or LIDDY.

New claims 26-29 depend from claim 1. Applicants submit that POZNANSKI, MASUICHI and LIDDY do not disclose the features of claim 1, from which these claims depend, or the additional features recited in these dependent claims.

In view of the foregoing remarks, Applicants respectfully request the Examiner's reconsideration of this application, and the timely allowance of the pending claims. To the extent necessary, a petition for an extension of time under 37 CFR § 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account No. 50-1070 and please credit any excess fees to such deposit account.

Respectfully submitted,

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